Terme

1. $2a^3b^{-1}cd^{-2} \cdot 2a^3bc^{-2}d^2 \cdot 2a^3bc^2d^2 \cdot 2ac^{-3}d^3 = \square$

2. $2ab^5c^{-1}d \cdot ab^3cd^2 \cdot b^2c^{-2}d^2 \cdot a^{-2}bc^{-1} = \square$

3. $\frac{2bc^{-1}d^{-1} \cdot 2bd^3}{a^{-2}b^2c^{-1}d} = \square$

4. $\frac{2a^{-6}c^3d^{-3} \cdot ab^3c^{-2}}{2a^{-4}cd^{-1}} = \square$

5. $\frac{1{,}6 \cdot 10^{-10}}{8 \cdot 10^{-5}} = \square$ $\frac{4{,}5 \cdot 10^{1}}{5 \cdot 10^{6}} = \square$ $\frac{2{,}8 \cdot 10^{2}}{4 \cdot 10^{-13}} = \square$

Faktorisiere und fasse zusammen

6. $\sqrt{175} + \sqrt{63} - \sqrt{343} = \square$ $\sqrt{48} + \sqrt{27} - \sqrt{75} = \square$

7. $\sqrt{75} + \sqrt{12} - \sqrt{108} = \square$ $\sqrt{80} + \sqrt{45} - \sqrt{245} = \square$

8. $\sqrt{150} = \square$ $\sqrt{48} = \square$ $\sqrt{112} = \square$

9. $\sqrt{54} = \square$ $\sqrt{54} = \square$ $\sqrt{80} = \square$

10. $(-3a + a^2)(3a - 3a^3) =$ _____

11. $(-ab^2 + 3ab)(2b^2 + 4a^3) =$ _____

Faktorisiere

12. $2a^5 - 4a^3 + 3a^6 + 4a^4 =$ _____

13. $4b^7 - 3a^4b - a^4b + a^3b^3 =$ _____

14. $a^6b^4 - a^4b^6 - 2a^5 + 3a^2b^5 =$ _____

Fasse zusammen

15. $-3a^2b^3 - b + 3a^2b^3 - 3a^3b^2 - 3a^2b^3 + a^2b^3 - 3b - 6a^2b^3 =$ _____

16. $-a^4b^3 + 5a^2b^3 + a^3b^4 - b + 2a^2b^2 - a^4b^3 - 6a^2b^3 - a^3b^4 =$ _____

17. $ab^2(6a^3 + a^3b^3 - 2a^5b^2 + 2b^7) =$ _____

18. $a^2b^2(-6a - 5a^2 + b^6 - 3a^2b) =$ _____

Terme

1. $2a^3b^{-1}cd^{-2} \cdot 2a^3bc^{-2}d^2 \cdot 2a^3bc^2d^2 \cdot 2ac^{-3}d^3 = \boxed{16a^{10}bc^{-2}d^5}$

2. $2ab^5c^{-1}d \cdot ab^3cd^2 \cdot b^2c^{-2}d^2 \cdot a^{-2}bc^{-1} = \boxed{2b^{11}c^{-3}d^5}$

3. $\frac{2bc^{-1}d^{-1} \cdot 2bd^3}{a^{-2}b^2c^{-1}d} = \boxed{4a^2d}$

4. $\frac{2a^{-6}c^3d^{-3} \cdot ab^3c^{-2}}{2a^{-4}cd^{-1}} = \boxed{a^{-1}b^3d}$

5. $\frac{1{,}6 \cdot 10^{-10}}{8 \cdot 10^{-5}} = \boxed{2 \cdot 10^{-6}}$ $\frac{4{,}5 \cdot 10^{1}}{5 \cdot 10^{6}} = \boxed{9 \cdot 10^{-6}}$ $\frac{2{,}8 \cdot 10^{2}}{4 \cdot 10^{-13}} = \boxed{7 \cdot 10^{14}}$

Faktorisiere und fasse zusammen

6. $\sqrt{175} + \sqrt{63} - \sqrt{343} = \boxed{\sqrt{7}}$ $\sqrt{48} + \sqrt{27} - \sqrt{75} = \boxed{2\sqrt{3}}$

7. $\sqrt{75} + \sqrt{12} - \sqrt{108} = \boxed{\sqrt{3}}$ $\sqrt{80} + \sqrt{45} - \sqrt{245} = \boxed{0}$

8. $\sqrt{150} = \boxed{5 \cdot \sqrt{6}}$ $\sqrt{48} = \boxed{4 \cdot \sqrt{3}}$ $\sqrt{112} = \boxed{4 \cdot \sqrt{7}}$

9. $\sqrt{54} = \boxed{3 \cdot \sqrt{6}}$ $\sqrt{54} = \boxed{3 \cdot \sqrt{6}}$ $\sqrt{80} = \boxed{4 \cdot \sqrt{5}}$

10. $(-3a + a^2)(3a - 3a^3) = \underline{-9a^2 + 3a^3 + 9a^4 - 3a^5}$

11. $(-ab^2 + 3ab)(2b^2 + 4a^3) = \underline{-2ab^4 + 6ab^3 - 4a^4b^2 + 12a^4b}$

Faktorisiere

12. $2a^5 - 4a^3 + 3a^6 + 4a^4 = \underline{a^3(2a^2 - 4 + 3a^3 + 4a)}$

13. $4b^7 - 3a^4b - a^4b + a^3b^3 = \underline{b(4b^6 - 3a^4 - a^4 + a^3b^2)}$

14. $a^6b^4 - a^4b^6 - 2a^5 + 3a^2b^5 = \underline{a^2(a^4b^4 - a^2b^6 - 2a^3 + 3b^5)}$

Fasse zusammen

15. $-3a^2b^3 - b + 3a^2b^3 - 3a^3b^2 - 3a^2b^3 + a^2b^3 - 3b - 6a^2b^3 = \underline{-8a^2b^3 - 4b - 3a^3b^2}$

16. $-a^4b^3 + 5a^2b^3 + a^3b^4 - b + 2a^2b^2 - a^4b^3 - 6a^2b^3 - a^3b^4 = \underline{-2a^4b^3 - a^2b^3 - b + 2a^2b^2}$

17. $ab^2(6a^3 + a^3b^3 - 2a^5b^2 + 2b^7) = \underline{6a^4b^2 + a^4b^5 - 2a^6b^4 + 2ab^9}$

18. $a^2b^2(-6a - 5a^2 + b^6 - 3a^2b) = \underline{-5a^4b^2 - 6a^3b^2 + a^2b^8 - 3a^4b^3}$